

Title (en)

Method of fabricating a gas sensor having zinc oxide nano-structures

Title (de)

Verfahren zur Herstellung eines Gassensors mit Zinkoxid-Nanostrukturen

Title (fr)

Procédé pour fabriquer un détecteur de gaz présentant des nanostructures d'oxyde de zinc

Publication

**EP 2044424 B1 20130227 (EN)**

Application

**EP 07745782 A 20070403**

Priority

- KR 2007001619 W 20070403
- KR 20060067095 A 20060718

Abstract (en)

[origin: WO2008010638A1] Provided are a gas sensor using a plurality of zinc oxide nano-structures on which metal islands are formed, and a method of fabricating the same. The gas sensor comprises zinc oxide nano-structures formed on a substrate, a plurality of metal islands coated on a surface of each zinc oxide nano-structure and separated from one another, a first electrode electrically connected to one end of each zinc oxide nano-structure through the substrate, a second electrode electrically connected to the other end of each zinc oxide nano-structure, and a current variation-measuring unit electrically connected to each of the first electrode and the second electrode so as to measure a variation in the amount of current flowing between the first electrode and the second electrode. In order to form the plurality of metal islands separated from one another on the surface of each zinc oxide nano-structure using a wet process, metal components of a metal material are coated on the surface of each zinc oxide nano-structure using the solution in which the metal material is solved.

IPC 8 full level

**G01N 27/12** (2006.01)

CPC (source: EP KR US)

**G01N 27/12** (2013.01 - EP KR US); **B82Y 15/00** (2013.01 - KR); **Y10T 29/49002** (2015.01 - EP US)

Cited by

US10793964B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2008010638 A1 20080124**; EP 2044424 A1 20090408; EP 2044424 A4 20111214; EP 2044424 B1 20130227; KR 100779090 B1 20071127; US 2010012919 A1 20100121; US 8087151 B2 20120103

DOCDB simple family (application)

**KR 2007001619 W 20070403**; EP 07745782 A 20070403; KR 20060067095 A 20060718; US 37390807 A 20070403